The following claims are presented for examination:

1. (Currently Amended) A method comprising:

~~receiving, by a processor-based device, a communication that comprises a word that is a natural-language word;~~

identifying, by **[[the]]** <u>a</u> processor-based device, **[[the]]** <u>a</u> word <u>**that (i) is**</u> received in **[[the]]** <u>a</u> communication<u>**, and (ii) is a natural-language word, wherein the processor-based device is to determine a category for the communication**</u>;

~~utilizing by the processor-based device a combination of terms that comprises:~~

<u>**combining**</u> (i) <u>**at least**</u> **[[a]]** <u>**one**</u> set of word-terms, and (ii) <u>**at least**</u> **[[a]]** <u>**one**</u> set of word-classes <u>**that is generated from an automatic word-class clustering algorithm**</u>, wherein a term is one of a word-term and a word-class<u>**, and wherein the combining results in a combination of terms**</u>;

selecting by the processor-based device a plurality of terms from the combination of terms, wherein the selecting is based on an information-gain value of those terms in the combination that correspond to the word;

generating by the processor-based device a matrix~~, wherein: (i) the matrix~~ <u>**that**</u> comprises a plurality of categories and the plurality of terms, **[[and]]** <u>**wherein**</u> **[[(ii)]]** each term in the matrix is associated with at least one category; and

determining from the matrix, <u>**based on a joint classification of the word**</u> by the processor-based device, **[[a]]** <u>**the**</u> category for the **[[word]]** <u>**communication**</u>.

2. (Cancelled)

3. (Currently Amended) The method of claim 1 further comprising:

routing the communication, by ~~the processor-based device~~ <u>**a communication system**</u>, to a particular one of a plurality of destination terminals of **[[a]]** <u>**the**</u> communication system, wherein the routing is based on the category ~~of the word~~, and

wherein the communication system comprises the processor-based device and the plurality of destination terminals.

4. (Canceled)

5. (Previously Presented) The method of claim 1 wherein the selecting of the plurality of terms is further based on a percentile value applied to the respective information-gain value of each term in the combination of terms.

6. (Previously Presented) The method of claim 5 wherein the information-gain value for each term in the combination of terms, indicates the average entropy variations over a plurality of possible categories for each term in the combination of terms.

7. (Currently Amended) The method of claim 1 wherein the category of the word is a cell in ~~a term-category~~ **the** matrix.

8. (Canceled)

9. (Previously Presented) The method of claim 1 wherein the combination of terms is generated by interleaving individual word-terms with their corresponding word-classes.

10. (Currently Amended) A method comprising:

~~receiving, by a processor-based device, a communication that comprises at least one word, wherein each of the at least one word is a natural-language word;~~

identifying, by [[the]] **a** processor-based device, [[the]] **at least one** word **that (i) is** received in [[the]] **a** communication**, and (ii) is a natural-language word, wherein the processor-based device is to determine a category for the communication**;

~~utilizing by the processor-based device a combination of terms that comprises:~~

combining (i) **at least** [[a]] **one** set of word-terms, and (ii) **at least** [[a]] **one** set of word-classes **that is generated from an automatic word-class clustering algorithm**, wherein a term is one of a word-term and a word-class**, and wherein the combining results in a combination of terms**;

selecting by the processor-based device a plurality of terms from the combination of terms, wherein the selecting is based on an information-gain value of those terms in the combination that correspond to the **at least one** word;

generating by the processor-based device a term-category matrix~~, wherein: (i) the term-category matrix~~ **that** comprises the plurality of terms and a plurality of categories, [[and]] **wherein** [[(ii)]] each term in the term-category matrix is associated with at least one category; and

classifying the communication by utilizing a joint classifier upon the at least one word, wherein the joint classifier comprises the term-category matrix.

11. (Previously Presented) The method of claim 10 wherein a cell *i, j* of the term-category matrix represents a classification by the processor-based device of an *i-th* selected term into a *j*-th category.

12. (Currently Amended) A method comprising:

~~receiving, by a processor-based device, a communication that comprises a word that is a natural-language word;~~

identifying, by [[the]] <u>a</u> processor-based device, [[the]] <u>a</u> word <u>that (i) is</u> received in [[the]] <u>a</u> communication<u>, and (ii) is a natural-language word, wherein the processor-based device is to determine a category for the word</u>;

~~utilizing by the processor-based device a combination of terms that comprises:~~

<u>combining</u> (i) <u>at least</u> [[a]] <u>one</u> set of word-terms, and (ii) <u>at least</u> [[a]] <u>one</u> set of word-classes <u>that is generated from an automatic word-class clustering algorithm</u>, wherein a term is one of a word-term and a word-class<u>, and wherein the combining results in a combination of terms</u>;

selecting by the processor-based device a plurality of terms from the combination of terms, wherein the selecting comprises:

i) calculating an information-gain value for each term in the combination of terms that corresponds to the word,

ii) sorting the terms in the combination of terms in a descending order of information-gain value,

iii) setting a threshold of an information-gain value corresponding to a specified percentile, and

iv) selecting only the terms from the combination of terms that have an information-gain value greater than or equal to the threshold to generate the plurality of terms.

13. (Previously Presented) The method of claim 12 wherein the selected terms in the plurality of terms are processed by the processor-based device to form a term-category matrix from which a joint classifier determines at least one category for the word, and wherein the processor-based device comprises the joint classifier.

14. (Previously Presented) The method of claim 12 further comprising:

generating by the processor-based device a term-category matrix, wherein:

>　(i) the term-category matrix comprises the plurality of terms and a plurality of categories, and

>　(ii) each term in the term-category matrix is associated with at least one category;

~~selecting~~ **determining** from the term-category matrix, **based on a joint classification of the word** by the processor-based device, **[[a]]** **the** category for the word; and

routing the communication, by ~~the processor-based device~~ **a communication system**, to a particular one of a plurality of destination terminals of **[[a]]** **the** communication system, wherein the routing is based on the category of the word, and wherein the communication system comprises the processor-based device and the plurality of destination terminals.

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15. (Currently Amended) An apparatus comprising:

a processor-based device operative to:

~~receive a communication that comprises a word that is a natural-language word;~~

identify [[the]] **a** word **that (i) is** received in [[the]] **a** communication**, and (ii) is a natural-language word, wherein the processor-based device is to determine a category for the word**; and

classify the communication by utilizing a joint classifier that is operative to:

> generate a combination of terms, based on the word, comprising:
>
>> (i) a set of word-terms, and
>>
>> (ii) a set of word-classes,
>>
>> wherein a term is one of a word-term and a word-class;
>
> select a plurality of terms from the combination of terms, based on an information-gain value of those terms in the combination that correspond to the word; and
>
> determine a category of the word, based on a term-category matrix, wherein:
>
>> (i) the term-category matrix comprises the plurality of terms and a plurality of categories, and
>>
>> (ii) each term in the term-category matrix is associated with at least one category.

16. (Currently Amended) The apparatus of claim 15 ~~wherein the processor-based device comprises~~ **further comprising** a switch that is operative to route the communication, based on the category of the word determined by the joint classifier, to a destination terminal of a communication system that comprises the apparatus and the destination terminal.

17. (Previously Presented) The apparatus of claim 15 wherein the category of the word is a cell in the term-category matrix.

18. (Currently Amended) An article of manufacture comprising:

a machine-readable storage medium that is a non-transitory storage medium and that comprises software code that when executed implements the steps of:

~~receiving a communication that comprises a word that is a natural-language word;~~

identifying **[[the]]** **a** word **that (i) is** received in **[[the]]** **a** communication**, and (ii) is a natural-language word, wherein the processor-based device is to determine a category for the word**;

~~generating a combination of terms comprising:~~

combining (i) **at least** **[[a]]** **one** set of word-terms, and (ii) **at least** **[[a]]** **one** set of word-classes **that is generated from an automatic word-class clustering algorithm**, wherein a term is one of a word-term and a word-class**, and wherein the combining results in a combination of terms**;

selecting a plurality of terms from the combination of terms, wherein the selecting is based on an information-gain value of those terms in the combination that correspond to the word;

applying a joint classifier to determine a category of the word, wherein the category of the word is a cell in a term-category matrix; and

routing the communication, based on the category of the word, to a destination terminal in a communication system that comprises the ~~machine-readable storage medium~~ **article of manufacture** and the destination terminal.